

AMENDMENT TO THE CLAIMS

IN THE CLAIMS

1. (Currently amended) A semiconductor device comprising:

a semiconductor substrate having a main surface; and

an element isolation trench formed on said main surface of said semiconductor substrate, wherein

the trench width of an upper end of said element isolation trench is larger than the trench width of a bottom surface while the length of a side surface located between said upper end and an end of said bottom surface is larger than the length of a straight line connecting said upper end and said end of said bottom surface, and

said side surface of said element isolation trench includes:

a first side surface located in the vicinity of said upper end of said element isolation trench and formed to be substantially perpendicular to said main surface of said semiconductor substrate,

a second side surface located in the vicinity of said bottom surface of said element isolation trench and formed to be substantially perpendicular to said main surface of said semiconductor substrate, and

a substantially inclined third side surface connecting said first side surface and said second side surface with each other.

2. (Original) The semiconductor device according to claim 1, wherein

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the section of at least a central portion of said side surface of said element isolation trench exhibits a curved shape having an angle of inclination gradually steepened toward a downward direction perpendicular to said main surface of said semiconductor substrate.

3. (Original) The semiconductor device according to claim 2, wherein the section of said side surface of said element isolation trench substantially has an S shape.

4. (Cancelled)

5. (Cancelled)

6. (Currently amended) The semiconductor device according to claim 1, wherein

said side surface of said element isolation trench includes:

a first side surface located in the vicinity of said upper end of said element isolation trench and formed to be substantially perpendicular to said main surface of said semiconductor substrate,

a second side surface located in the vicinity of said bottom surface of said element isolation trench and formed to be substantially perpendicular to said main surface of said semiconductor substrate, and

a substantially linearly inclined third side surface connecting said first side surface and said second side surface with each other, and the third side surface is linearly inclined with respect to the main surface of the semiconductor substrate.

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7. (Original) The semiconductor device according to claim 1, wherein an insulator is embedded in said element isolation trench.

8-17. (Withdrawn)

18. (New) A semiconductor device comprising:
a semiconductor substrate having a main surface; and
an element isolation trench formed on said main surface of said semiconductor substrate, wherein

the trench width of an upper end of said element isolation trench is larger than the trench width of a bottom surface, the trench comprising:

a first side surface located in the vicinity of said upper end of said element isolation trench and formed to be substantially perpendicular to said main surface of said semiconductor substrate,

a second side surface located in the vicinity of said bottom surface of said element isolation trench and formed to be substantially perpendicular to said main surface of said semiconductor substrate, and

a third side surface, connecting said first side surface and said second side surface with each other, which has a substantially S shape or is substantially linearly inclined with respect to the main surface.